

Multi-Disciplinary Disaster Recovery Assistance *.....what to do when the home team can't be there*



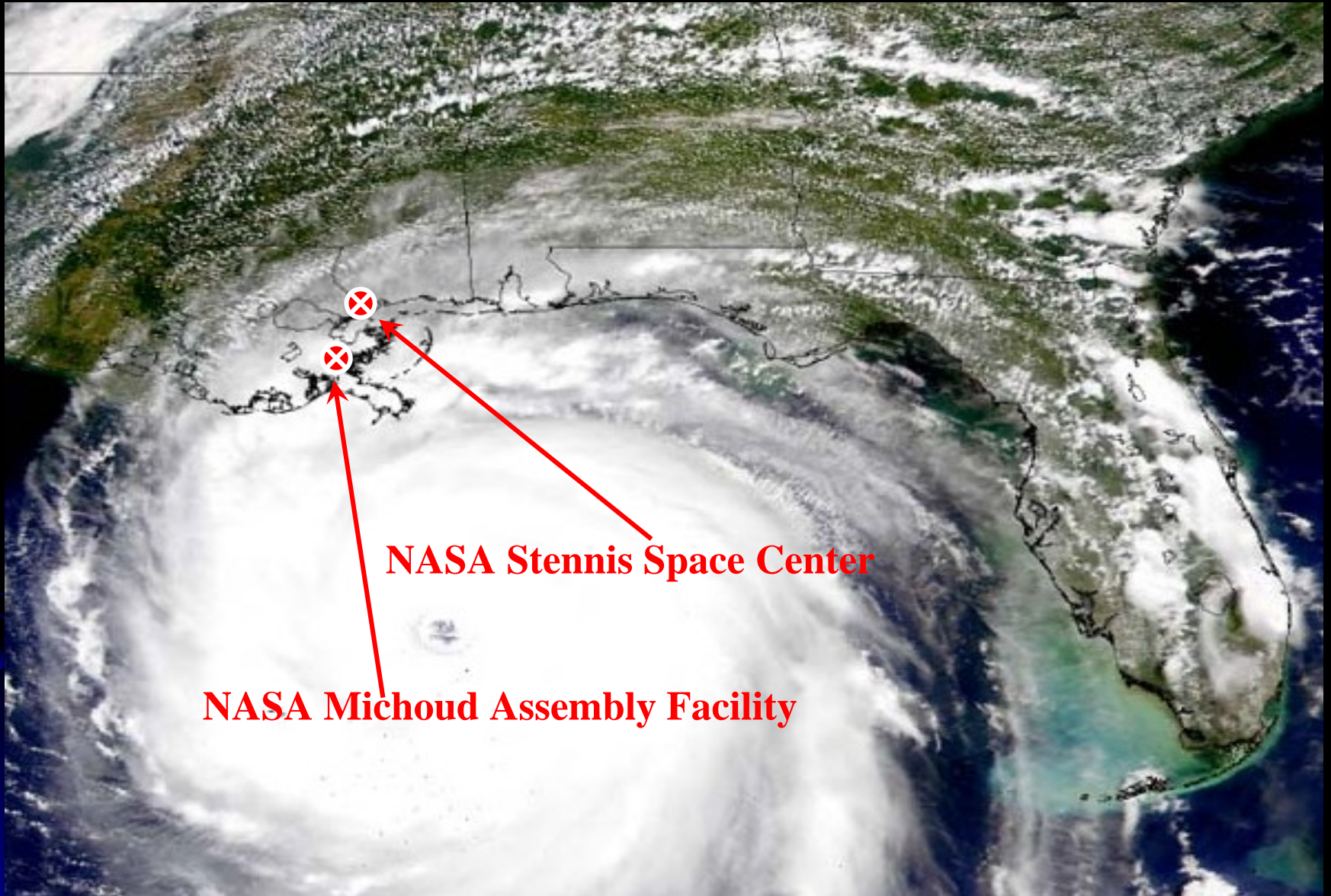
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How you can help the home team

- After a disaster the onsite OEHS professionals might be...
 - Not there
 - Dealing with family, home, and personal matters
 - Overwhelmed by the tragedy
- IHS from “outside” can come in and really make a difference
 - We can navigate from the boardroom to the basement
 - Anticipate, Recognize, Evaluate, Control

Multi Disciplinary?

- After a disaster there are more than IH issues
 - Medical Assistance for injuries and illness
 - Employee Assistance and Counseling
 - Public Health/Sanitation Issues
 - Safety inside and outside the workplace
 - Environmental Issues
 -and whatever else pops up

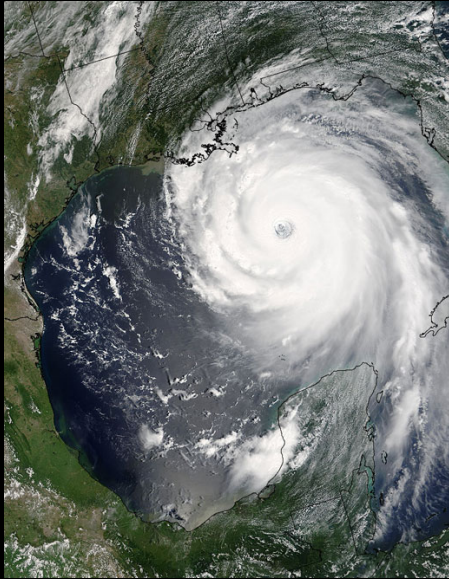


NASA Facilities Impacted by Katrina

NASA Facilities on the Gulf Coast

- Both Stennis Spaceflight Center and Michoud Assembly Facility experienced significant impacts from Katrina
- Chief Health and Medical Officer organized trip to assess needs and provide assistance
 - Two IHs
 - One Public Health Expert
 - One Physician

Timeline of Support



8/24

8/29

9/5

9/7

September/early October

Katrina
"born"

She hits
Gulf Coast

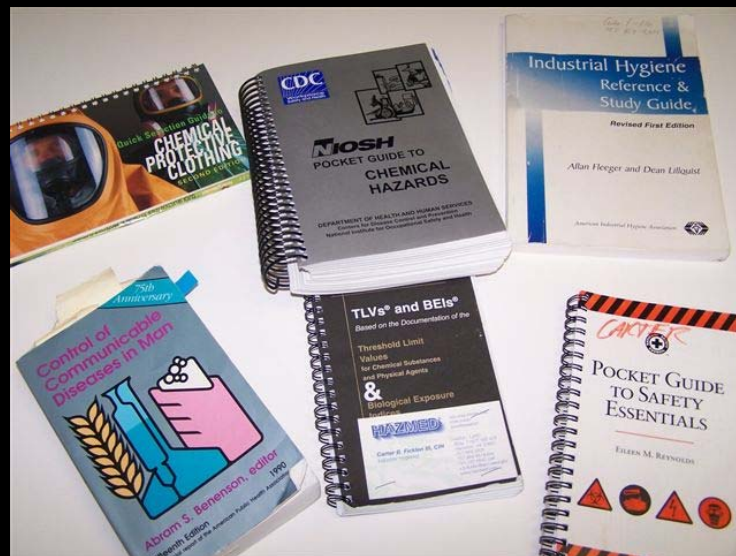
Labor
day

Initial
Assessment
Team visits
Stennis and
Michoud

Weekly OEHS Support Teams
At Stennis Spaceflight Center

Getting Ready to Go on Initial Visit

- Not much notice.....two hours
 - No solid information
 - Try to anticipate conditions and issues
- What to bring
 - AIHA Emergency Response Task Force Checklist – a true lifesaver
- Talk to people with experience

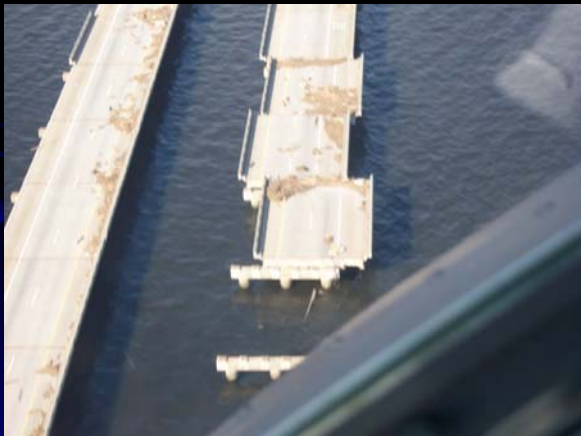


Getting there may not be easy





- Flooding was indescribable
- It was like this for as far as the eye can see



Michoud Assembly Facility



Michoud Situation

- Model effort for preparation, rideout, and recovery
 - Well planned and executed
 - Teamwork was excellent by the 38 members of the rideout team
- Minor facility damage....relative to surrounding areas
 - 4-16,000 gallon per minute pumps kept site dry
- It was an island....
 - Only way in or out was by helicopter
 - Morale was high and coordination was world class
 - Team from NASA Ames established satellite communications and water purification
- Many workers lost everything at home
- Their efforts saved NASA's Space Shuttle Program
 - Production resumed 12 days after Katrina hit

Stennis Space Center



Stennis Situation

- Much larger, more complex situation than Michoud
 - Opened facility as a shelter just prior to storm
 - A story in itself
 - Primary medical care for community of 8,000 people
 - Served 250,000 meals in one month
 - Potential for Public Health and Safety issues
- Limited Safety and IH staff onsite
 - Many had evacuated or were homeless
 - The one IH that was there deserves a medal
- Lots of effort, not a lot of coordination
 - Communications issues
 - Many key people could not get into work due to personal property damage/loss
- FEMA and other agencies used Stennis as a staging area



Stennis



- Roof damage caused major water intrusion in facilities



You name it, it was there



The plan to help

- Provide weekly rotations of OEHS teams
 - Thought given to team makeup
 - A combination of past storm experience, management skill.....and MacGuyver
- Sanitation concerns for displaced families
- Address immediate IH issues
- Keeping people safe as they work at home
 - Raise awareness on hazards and how to control them

Facility Assessments

- Teams formed to assess IH related issues
 - Main issues were asbestos and moisture related
 - Over 240 assessments were performed



What did we learn

- Get there sooner....if possible
- Organize and train outside teams ahead of time
 - National Incident Management System (NIMS) Incident Command System Training
 - Streamline and standardize the facility assessment process
 - Develop agency policy/direction for this type of effort
- Ensure Emergency Response and Continuity of Operations Plans are adequate
 - Do you have a plan for afterwards.....months??
 - Determine how to integrate outside assistance
- Improve communications abilities
 - Develop system to account for employees
- Never forget the human side